UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/899,833	07/05/2001	Raymond Walter Ellis	21183-P001P1	9671

33864 7590 06/06/2006

O'MELVENY & MYERS, LLP
275 BATTERY STREET
SUITE 2600
SAN FRANCISCO, CA 94111-3305

EXAMINER	
PWU, JEFFREY C	

ART UNIT	PAPER NUMBER
2143	

DATE MAILED: 06/06/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/899,833	ELLIS ET AL.	
	Examiner	Art Unit	
	Jeffrey C. Pwu	2143	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *28 February 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-4,6,8-14,16,18-24,26,28-48 and 52-54* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-4, 6, 8-14, 16, 18-24, 26, 28-48, 52-54* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *21 September 2001* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 2/28/06 has been entered.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claim 1 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claims 1 is vague and indefinite because it is unclear what is "a first method" in the limitation "invoking a first method of said object in response to said first message".

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 1, 2, 8, 10-12, 18, 20-22, 28, 30, 43, 45, 47, and 52-54 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rangachari et al. (U.S. 6,470,227) in view of Auerbach et al. (U.S. 6,549,937)

Rangachari teaches a method for automated tool Management substantially claimed including the steps of receiving a first message in a first selected protocol from a first client application, wherein said first message comprises a first request to perform a first action on a first tool, wherein said message identifies an object in an equipment model of said tool, [Rangachari -- Figure 1, Col. 8 lines 43-46, Col. 9 lines 22-42, Col. 10 lines 45-51, Col. 11 lines 4-18 and Col. 13 lines 7-12 - Workflows are created by the user manipulating a GUI at the automation system to select equipment and actions necessary for a job. This message, which is sent using the Semiconductor Equipment Communication Standard protocol (SECS), is received which correlates an object in the workflow with selected actions/methods]; invoking a first method of said object in response to said first message [Rangachari -- Figure 1 and Col. 10 lines 52-64 - Methods are invoked between application objects and servers to perform specific tasks outlined in the message]; and transferring a first return value to said first client application, wherein said return value is associated with said first action [Rangachari -- Col. 10 lines 64-67 - Col. 11 lines 1-3 - Client is notified of the completion of the task along with any attributes that are needed, i.e. return values].

Rangachari further discloses wherein said message further comprises data and wherein said step of invoking passes said data to said method [Rangachari -- Col. 13 lines 4-41- Message,

i.e. workflow definition, includes parameters, i.e. data which serve to help link together activities and equipment that is to be executed].

Rangachari further discloses wherein said protocol comprises the SECS protocol [Rangachari -- Col. 8 lines 43-45]. With respect to claim 10, Rangachari further teaches wherein said data in said message is notification data [Rangachari -- Col. 10 lines 43-64 and Col. 12 lines 65-67 - Data in messages notifies workflow engine and equipment what task to perform in addition the user is notified of status information of equipment].

However, Rangachari fails to teach "receiving a second message in a second selected protocol from a second client application; wherein said second message comprises a second request to perform a second action on a second tool; wherein said second message identifies a second object in said equipment model, wherein said equipment model comprises a logical representation of said second tool, wherein said second selected protocol is different than said first selected protocol; invoking a second method of said second object in response to said second message; and transferring a second return value to said second client application; wherein said second return value is associated with said second action". However, Contungo et al. teaches multiple clients running multiple applications communicating using different protocols that performs the multi-protocol communication in a network which allows the entry of data messages and/or commands with multiple service providers, i.e. a single equipment model that can accept messages to perform actions from two client applications utilizing two different protocols. (It would have been obvious to a person of ordinary skill in the art at the time the invention was made to use the network system as taught by Contungo et al., to allow users to access servers data without the need for protocol translation. Furthermore, to provide customers

faster network performance, improved stability, and improved access to remotely accessed data by supporting both protocols to automat the manufacturing process of Rangachari, to improve workflow efficiency by better monitoring processes, thereby preventing bottlenecks, work stoppages and problems which limit production.

6. Claim 3-4, 6, 9, 13-14, 16, 19, 23-24, 26, 29, 44, 46, and 48 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rangachari et al. (U.S. 6,470,227) and Contungo et al. (U.S. 6,198,480) and further in view of Tadokoro et al. (U.S. 6,463,352).

Rangachari- Contungo teaches the invention substantially as claimed, but fails to explicitly teach requesting data from an asynchronous source, if valid information exists corresponding to said data, creating said return value based on said valid information, if valid information does not exist corresponding to said data, creating said return value based on a database of said equipment model, incorporating said return value into a return message to said client application and transferring said return message in said selected protocol to said client application in response to an address provided by said client application. Tadokoro, however, discloses a system for management of equipment, i.e. cutting machines, which includes an alarm routine which requests data from a alarm source, i.e. asynchronous source, which returns valid information in a return message to said client application, i.e. GUI or browser, which includes current status information indicating alarm conditions, via graphic or highlight along with job/equipment information or equipment information and past historical values stored in a database if current information is unavailable. Additionally the system transfers the return messages back to the client application

from the routines via COM or RMI protocol to the same address, i.e. machine or browser IP, that requested the data [Tadokoro --Figures 11A-D, Col. 10 lines 1-24, Col. 11 lines 5-6, Col. 16 lines 44-65, Col. 18 lines 35-40, Col. 22 lines 1-27 and Col. 28 lines 53-67 - Col. 29 lines 1-67]. Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to incorporate the returning of alarm monitoring information from an asynchronous source, i.e. alarm, which provides alert information, i.e. current or historic, via a message returned to the client application using a selected protocol, as taught by Tadokoro into Rangachari- Contungo, in order to improve workflow and efficiency of a system by better monitoring processes, thereby preventing bottlenecks, work stoppages and problems which limit production [Tadokoro -- Col. 2 lines 10-25].

Rangachari- Contungo -Tadokoro teach the invention substantially as claimed, including wherein if said request comprises a request for data and if said tool is a synchronous source of said data, then the method further comprises the steps of:

retrieving information from said tool [Tadokoro -- Col. 8 lines 39-46 and Col. 17 lines 10-14 - Collecting objects polls VM objects and reads data from sensors on equipment via 1a monitoring routine/source, i.e. synchronous source]; creating said return value based on said information, incorporating said return value into a return message to said client application, and;, transferring said return message in said selected protocol to said client application in response to an address provided by said client application [Tadokoro -- Col. 8 lines 24-59, Col. 9 lines 10-26, Col. 10 lines 1-24, Col. 11 lines 5-6, Col. 16 lines 44-65, Col. 17 lines 21-37, Col. 18 lines 35-40 and Col. 30 lines 39-67 - Col. 31 lines 1-20 - Status array is populated with appropriate values

and is returned to a calling. component via a message through one of various protocols including COM, RMI and HTML, thereby routing the message to the client application, i.e. GUI or browser, via the address that made the request].

Rangachari- Contungo -Tadokoro teach the invention substantially as claimed, including wherein if said request comprises a request for data and if said tool is not one of an asynchronous source of said data and a synchronous source of said data, then the method further comprises the steps: creating said return value based on a database of said equipment model and incorporating said return value into a return message to said client application, and, transferring said return message in said selected protocol to said client application in response to an address provided by said client application [Rangachari -- Col. 8 lines 43-46 and Col. 10 lines 43-67 - Col. 11 lines 1-18 - Manufacturing system places a request via a message to the system for a manufacturing process which configures equipment and creates a return value via a message using the SECS protocol and sends this message back to the sending client application].

Rangachari, Contungo, Rangachari, teach the invention substantially as claimed, including wherein said method of said object is invoked to remotely access and electronically diagnose said tool [Tadokoro -- Figures 1, 2A, 8B, 11D;12C, Col. 9 lines 10-26, Col. 16 lines 44-65 and Col. 29 lines 60-67 - Col. 30 lines 1-4 - Automation system allows for monitoring of equipment, i.e. for diagnosing the status, remotely over the Internet/Intranet].

7. Claims 31-42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rangachari et al. (U.S. 6,470,227) and Contungo et al. (U.S. 6,198,480) in view of O'Brien et al. (U.S. 6,658,571).

Rangachari- Contungo teach the invention substantially as claimed, but fails to explicitly teach generating a security wrapper layer, wherein said security wrapper layer provides a layer of protection to said model; and creating a security wrapper object in said security wrapper, wherein a pointer to a corresponding object is stored in said security wrapper and transferred to said client application. , O'Brien, however, discloses a security framework for applications to limit exposure to potential attacks by providing a security wrapper layer for system calls which creates a pointer to a corresponding application object within the system thereby providing greater protection against malicious code or wrongful method invocation [O'Brien -- Col. 2 lines 13-24, Col. 3 lines 41-55, Col. 4 lines 30-48, Col. 5 lines 1-15 and lines 28-46 and Col. 6 lines 18-35]. Rangachari- Contungo would want the benefit of the teachings of O'Brien in order to provide a secure system and transport due to the communications which can occur over the vulnerable Internet [Rangacbari - Col. 6 lines 22-24]. It would have been obvious to a person of ordinary skill in the art at the time the invention was made to incorporate the security wrapper layer and security methodology, as taught by O'Brien into the invention of Rangachari, in order to provide security to an application which does not significantly affect performance which limits the amount of potential damage by attackers and does not require using additional hardware or modifications to existing software applications [O'Brien -- Col. 1 lines 63-67 and Col. 2 lines 1-9].

Response to Arguments

8. Applicant's arguments with respect to claims 1-4, 6, 8-14, 16, 18-24, 26, 28-48, 52-54 have been considered but are moot in view of the new ground(s) of rejection.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeffrey C. Pwu whose telephone number is 571-272-6798. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wiley can be reached on 571-272-3923. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

5/26/06
JEFFREY PWU
PRIMARY EXAMINER